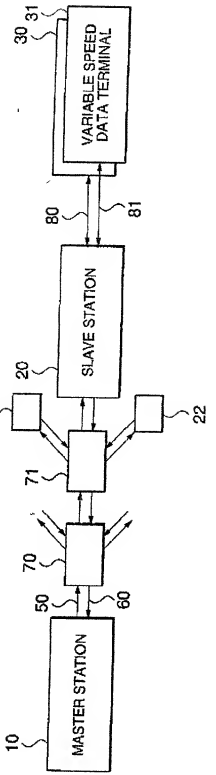
FIG.1



2092210 "78028001

FIG.2

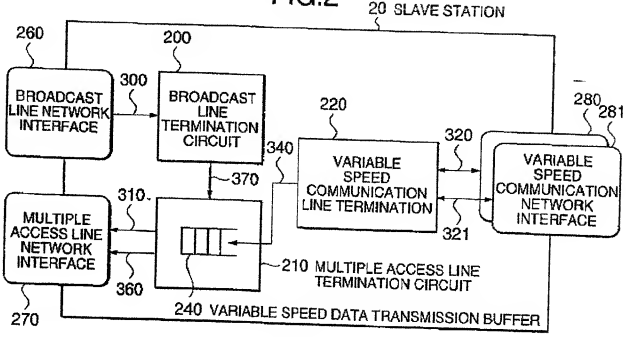

20 SLAVE STATION
260
200
300
BROADCAST LINE NETWORK INTERFACE
BROADCAST LINE TERMINATION CIRCUIT
220
280
281
320
340
VARIABLE SPEED COMMUNICATION LINE TERMINATION
VARIABLE SPEED COMMUNICATION NETWORK INTERFACE
370
310
321
MULTIPLE ACCESS LINE NETWORK INTERFACE
210 MULTIPLE ACCESS LINE TERMINATION CIRCUIT
360
270
240 VARIABLE SPEED DATA TRANSMISSION BUFFER

FIG.3

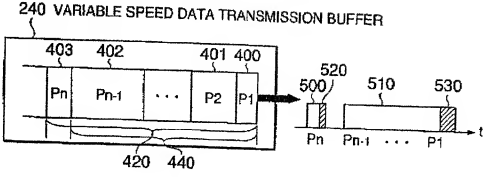

240 VARIABLE SPEED DATA TRANSMISSION BUFFER
403
402
401
400
Pn
Pn-1
P2
P1
520
500
510
530
t
420
440

FIG.4

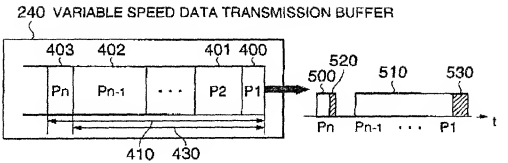

240 VARIABLE SPEED DATA TRANSMISSION BUFFER
403
402
401
400
Pn
Pn-1
P2
P1
410
430
520
500
510
530
Pn
Pn-1
P1
t

FIG.5

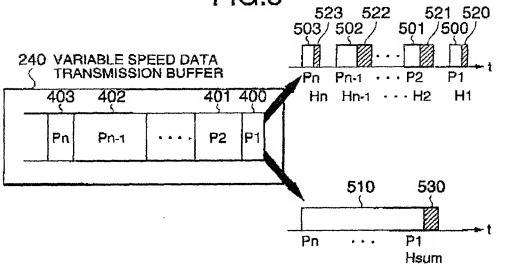

240 VARIABLE SPEED DATA TRANSMISSION BUFFER
403
402
401
400
Pn
Pn-1
P2
P1
523
503
522
502
521
501
520
500
Pn
Pn-1
P2
P1
Hn
Hn-1
H2
H1
510
530
Pn
P1
Hsum
t

FIG.6

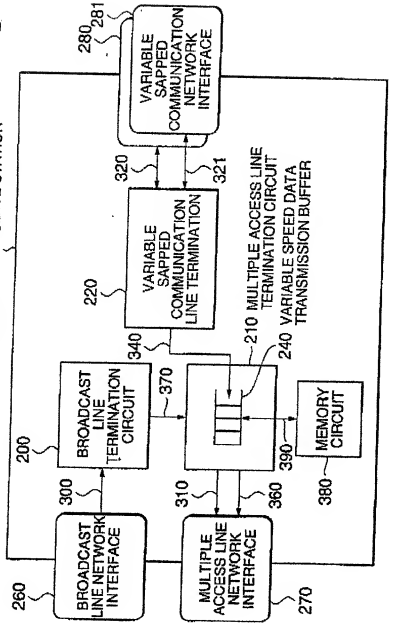

20 SLAVE STATION
200
260
BROADCAST LINE NETWORK INTERFACE
300
BROADCAST LINE TERMINATION CIRCUIT
340
370
MULTIPLE ACCESS LINE NETWORK INTERFACE
270
310
360
210 MULTIPLE ACCESS LINE TERMINATION CIRCUIT
240 VARIABLE SPEED DATA TRANSMISSION BUFFER
390
MEMORY CIRCUIT
380
220
VARIABLE SAPPED COMMUNICATION LINE TERMINATION
320
321
280
281
VARIABLE SAPPED COMMUNICATION NETWORK INTERFACE

FIG.7

600

NUMBER OF DATA

DATA SIZE

	H
~64	10
65~100	10
101~200	10
⋮	⋮
1301~1400	10
1401~1500	10
1501~	10

OVERHEAD Hsum CORRESPONDENCE TABLE
(FOR INDIVIDUAL TRANSMISSION)

FIG.8

700

NUMBER OF DATA

DATA SIZE

	1	2	3	⋯	9	10
~64	15	15	15	⋯	15	15
65~100	16	16	16	⋯	16	16
101~200	17	17	17	⋯	17	17
⋮	⋮	⋮	⋮	⋮	⋮	⋮
1301~1400	28	28	28	⋯	28	28
1401~1500	29	29	29	⋯	29	29
1501~	30	30	30	⋯	30	30

OVERHEAD Hsum CORRESPONDENCE TABLE
(FOR CONCANATED TRANSMISSION)

20020107.1802301

20020920"7802800T

FIG.9

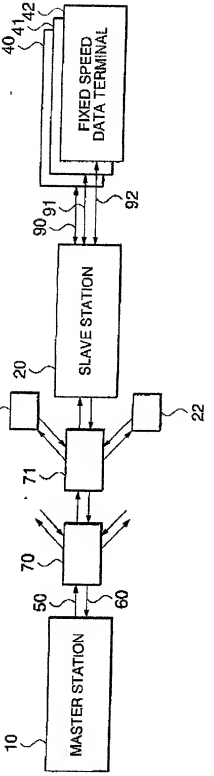


FIG.10

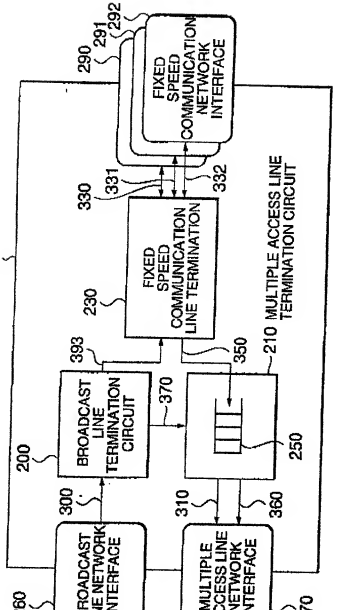
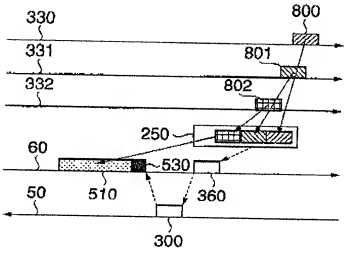

20
260
BROADCAST LINE NETWORK INTERFACE
300
200
BROADCAST LINE TERMINATION CIRCUIT
393
370
310
MULTIPLE ACCESS LINE NETWORK INTERFACE
360
270
250
230
FIXED SPEED COMMUNICATION LINE TERMINATION
350
210 MULTIPLE ACCESS LINE TERMINATION CIRCUIT
330
331
332
290
291
292
FIXED SPEED COMMUNICATION NETWORK INTERFACE

FIG.11



2009240-7812800T

FIG.12

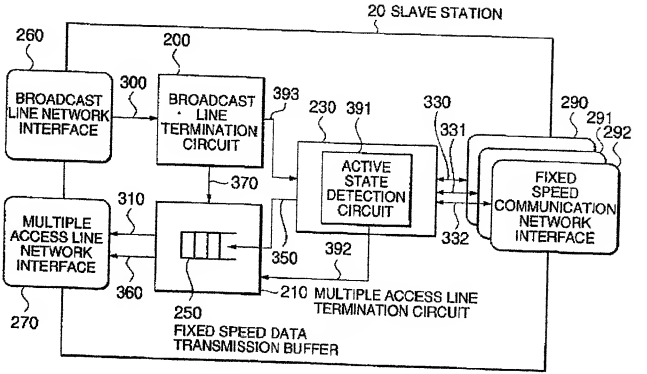
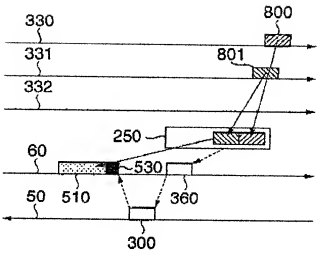

20 SLAVE STATION
260
200
300
393
230 391
330
290
291
292
331
BROADCAST LINE NETWORK INTERFACE
BROADCAST · LINE TERMINATION CIRCUIT
ACTIVE STATE DETECTION CIRCUIT
FIXED SPEED COMMUNICATION NETWORK INTERFACE
370
310
MULTIPLE ACCESS LINE NETWORK INTERFACE
350
392
332
360
210 MULTIPLE ACCESS LINE TERMINATION CIRCUIT
270
250
FIXED SPEED DATA TRANSMISSION BUFFER

FIG.13



2002-220801

209220 '78028007

FIG.14

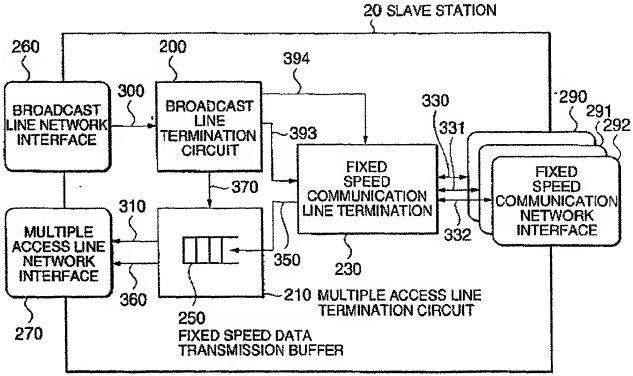
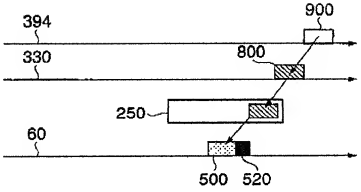


FIG.15



2092201 '2802801

FIG. 16

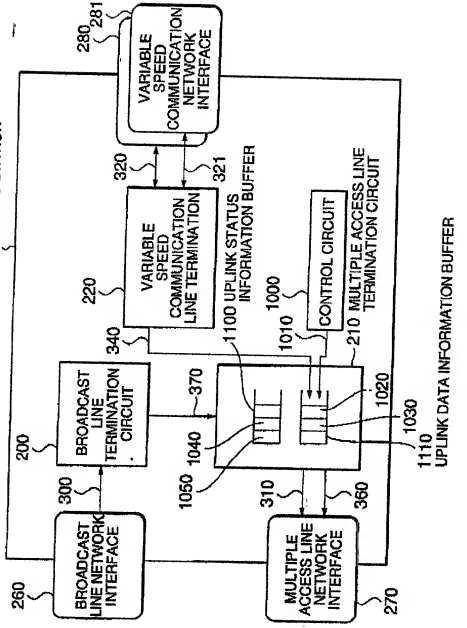

20 SLAVE STATION
200
260
BROADCAST LINE NETWORK INTERFACE
300
BROADCAST LINE TERMINATION CIRCUIT
340
370
220
VARIABLE SPEED COMMUNICATION LINE TERMINATION
320
321
280
281
VARIABLE SPEED COMMUNICATION NETWORK INTERFACE
1100 UPLINK STATUS INFORMATION BUFFER
1000
1010
CONTROL CIRCUIT
210 MULTIPLE ACCESS LINE TERMINATION CIRCUIT
1020
1030
1040
1050
310
360
270
MULTIPLE ACCESS LINE NETWORK INTERFACE
1110
UPLINK DATA INFORMATION BUFFER

FIG.17

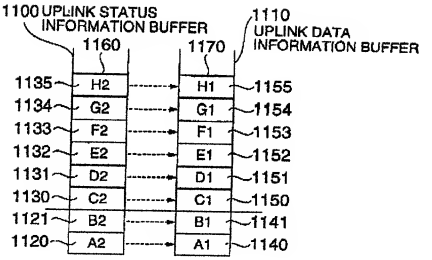
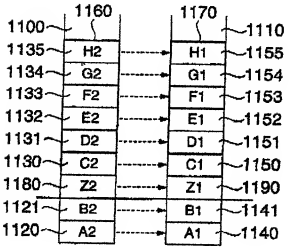

1100 UPLINK STATUS INFORMATION BUFFER
1160
1170
1110 UPLINK DATA INFORMATION BUFFER
1135 H2
1134 G2
1133 F2
1132 E2
1131 D2
1130 C2
1121 B2
1120 A2
H1 1155
G1 1154
F1 1153
E1 1152
D1 1151
C1 1150
B1 1141
A1 1140

FIG.18


1160
1170
1100
1110
1135 H2
1134 G2
1133 F2
1132 E2
1131 D2
1130 C2
1180 Z2
1121 B2
1120 A2
H1 1155
G1 1154
F1 1153
E1 1152
D1 1151
C1 1150
Z1 1190
B1 1141
A1 1140